CLAIMS

What is claimed is:

1. A system comprising:

a first sensor to determine a first distance from the first sensor to a first side of an object;

a second sensor to determine a second distance from the second sensor to a second side of the object;

a third sensor to determine a third distance from the third sensor to a platform, wherein the platform is operably connected to a translation device to move the platform with respect to the sensors and operably connected to a displacement-measuring device to determine the displacement of the platform, wherein during normal operation the sensors are used to determine the thickness of the object, and during calibration operation the displacement-measuring device is used to calibrate the sensors.

2. The system of claim 1, wherein the first and second sensors are laser sensors.

3. The system of claim 1, wherein the third sensor is an RF coil sensor.

4. The system of claim 1, wherein the third sensor senses through the object during normal operation.

5. The system of claim 1, wherein the displacement measurement device is a linear variable differential transformer.

6. The system of claim 1, wherein the translation device includes a stepper motor.

7. The system of claim 1, wherein the platform is connected to a sliding mechanism to slide the platform back to the second sensor.

8. The system of claim 1, wherein a processor is used to calculate the thickness of the object during normal operation, the calculation using the previously determined calibration data.

9. A method comprising:

in a normal mode, using a first sensor to determine a first distance from the first sensor to a first side of an object, using a second sensor to determine a second distance from the second sensor to a second side of the object, using a third sensor to determine a third distance from the third sensor to a platform, wherein the sensors are used to determine the thickness of the object; and

in a calibration mode, a displacement-measuring device is used to calibrate the sensors, wherein the platform is operably connected to a translation device to move the platform with respect to the sensors and operably connected to the displacement-measuring device to determine the displacement of the platform.

10. The method of claim 9, wherein the first and second sensors are laser sensors.

11. The method of claim 9, wherein the third sensor is an RF coil sensor.

12. The method of claim 9, wherein during normal operation the third sensor senses through the object.

13. The method of claim 9, wherein the displacement measuring device is a linear variable differential transformer.

14. The method of claim 9, wherein during the calibration mode a stepper motor translates the platform.

15. The method of claim 9, wherein a sliding mechanism connects the platform is used to translate the platform with respect to the second sensor.

16. The method of claim 9, wherein during normal mode the processor is used to calculate the thickness.

17. The method of claim 16, wherein the calculator uses the calibration offsets in the determination of the thickness.